



Governor

Lori F. Kaplan
Commissioner

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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May 14, 2003

Jim Seufert
Universal Forest Products
50415 Herbert St.,
Granger, IN 46530

Re: Registered Construction and Operation Status,
141-15187-00544

Dear Mr. Seufert:

The application from Universal Forest Products, Inc., received on November 21, 2001, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following wood working facility, located at 50415 Herbert St., Granger, Indiana 46530, is classified as registered:

- (a) Rough Sawing and Molding with a maximum capacity of 0.5 tons of woodwaste generated per hour, controlled by the Mill cyclone;
- (b) Shaving/Chipping process, with a maximum capacity of 0.5 tons of woodwaste generated per hour, controlled by the Hogger cyclone.

The following conditions shall be applicable:

- (1) 326 IAC 5-1-2 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
 - (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity) monitor in a six (6) hour period.

- (2) Pursuant to 326 IAC 6-3-2(e) (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the shaving/chipping and, rough sawing and molding processes shall each not exceed 2.5 pounds per hour when operating at a process weight rate of 0.5 tons per hour each. The pounds per hour limitation was calculated using the following equation: shaving/chipping, rough sawing and molding processes

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

- (3) 326 IAC 2-5.5 (Registration)
The particulate matter controlled emission factor for the hogging and milling processes shall not exceed 0.5 pounds per ton of sawdust. Compliance with this limit shall limit the source wide potential to emit PM and PM-10 to less than 25 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-6.1 do not apply.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3)). The annual notice shall be submitted to:

**Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015**

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,
Original signed by Paul Dubenetzky

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

AB/EVP

cc: File - St. Joseph County
St. Joseph County Health Department
Air Compliance - Rick Reynolds
Northern Regional Office
Permit Tracking
Air Programs Section- Michelle Boner

Registration

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3)

Company Name:	Universal Forest Products, Inc.
Address:	50415 Herbert St., Granger, IN 46530
City:	Granger
Authorized individual:	Jim Seufert
Phone #:	(616) 364-6161
Registration #:	141-15187-00544

I hereby certify that Universal Forest Products, Inc. is still in operation and is in compliance with the requirements of Registration 141-15187-00544.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name: Universal Forest Products, Inc.
Source Location: 50415 Herbert St., Granger, Indiana 46530
County: St. Joseph
SIC Code: 2491, 2439
Operation Permit No.: R141-15187-00544
Permit Reviewer: Alic Bent/EVP

The Office of Air Quality (OAQ) has reviewed an application from Universal Forest Products, Inc. relating to the operation of a woodworking facility.

Permitted Emission Units and Pollution Control Equipment

There are no permitted facilities operating at this source during this review process.

Unpermitted Emission Units and Pollution Control Equipment

The source consists of the following unpermitted emission units and pollution control devices which should have been permitted under 326 IAC 2-5.5-1(b)(1)(A):

- (a) Rough Sawing and Molding, constructed in 1978, with a maximum capacity of 0.5 tons of woodwaste generated per hour, controlled by the Mill cyclone;
- (b) Shaving/Chipping process, constructed in 1997, with a maximum capacity of 0.5 tons of woodwaste generated per hour, controlled by the Hogger cyclone.

Existing Approvals

The source has been operating without any previous approvals.

Enforcement Issue

- (a) IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled *Unpermitted Emission Units and Pollution Control Equipment*.
- (b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
Mill Cyclone	Woodworking	25	10	25,000	Ambient
Hogger Cyclone	Woodworking	30	10	25,000	Ambient

Recommendation

The staff recommends to the Commissioner that the woodworking operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on November 21, 2001, with additional information received on December 21, 2001.

Emission Calculations

See Appendix A (page 1 of 1) of this document for detailed emissions calculations.

Potential To Emit of Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	10.95
PM-10	5.475
SO ₂	negl.
VOC	negl.
CO	negl.
NO _x	negl.

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM and PM-10 are less than 25 and greater than 5 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-5.5.
- (b) St. Joseph County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories

under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD.

County Attainment Status

The source is located in St. Joseph County.

Pollutant	Status
PM-10	unclassifiable
SO ₂	attainment
NO ₂	attainment
Ozone	maintenance
CO	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. St. Joseph County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, with total emissions as indicated in this permit R-141-15187-00544, is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in St. Joseph County which is one of the specifically regulated counties, but the potential to emit VOC and NO_x is less than ten (10) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute

averaging period as determined in 326 IAC 5-1-4.

- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity) monitor in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of this source will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-5.5 (Registration)

The particulate matter controlled emission factor for the hogging and milling processes shall not exceed 0.5 pounds per ton of sawdust. Compliance with this limit shall limit the source wide potential to emit PM and PM-10 to less than 25 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-6.1 do not apply.

326 IAC 6-1-2 (Particulate Matter Emissions Limitations)

Pursuant to 326 IAC 6-1-1 (Applicability) specifically listed sources or facilities, or sources or facilities not specifically listed but located in a listed county and having either a potential to emit (PTE) 100 tons per year (tpy) or more or actual emissions of 10 tpy or more of PM, are subject to the rule requirements.

The source is located in St. Joseph County, a specifically listed county and the source has actual PM emissions greater than 10 tpy. The source and its facilities are not specifically listed at 326 IAC 6-1-18 and, therefore, the requirements of 326 IAC 6-1-2(a) (General Sources) are applicable to this source. The allowable PM emissions for the processes controlled by the Hogger cyclone (shaving/chipping) and Mill cyclone (rough sawing and molding) are both 6.4 lb/hr (based on the 326 IAC 6-1-2 limit of 0.03 gr/dscf and a maximum air flow rate of 25,000 acfm). This source is not subject to 326 IAC 6-1-2 (Particulate Matter Emissions Limitations), because the allowable emissions for 326 IAC 6-1-2 are less stringent than the allowable emissions for 326 IAC 6-3-2.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

- (a) The shaving/chipping operation is subject to 326 IAC 6-3-2(e) (Particulate Emission Limitations for Manufacturing Processes). The particulate from the shaving/chipping operation, shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour} \\ P = \text{process weight rate in tons per hour}$$

$$E = 4.10 (0.5)^{0.67} = 2.5 \text{ lbs PM/hr}$$

Based on the above equation, particulate matter emissions from the shaving/chipping operation shall be limited to 2.5 pounds per hour for a maximum process rate of 0.5 tons per hour.

Uncontrolled Compliance calculation:

$$(5.475 \text{ tons PM/yr}) * (\text{yr}/8,760 \text{ hrs}) * (2,000 \text{ lbs/ton}) = 1.25 \text{ lbs PM/hr} < 2.5 \text{ lbs PM/hr}$$

The cyclone is not required to be in operation at all times when the woodworking operation, identified as shaving/chipping is in operation to comply with the requirements of 326 IAC 6-3-2. However, the source voluntarily uses the cyclone to control emissions from the woodworking operation.

- (b) The rough sawing and molding processes are subject to 326 IAC 6-3-2(e) (Particulate Emission Limitations for Manufacturing Processes). The particulate from the rough sawing and molding processes, shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour} \\ P = \text{process weight rate in tons per hour}$$

$$E = 4.10 (0.5)^{0.67} = 2.5 \text{ lbs PM/hr}$$

Based on the above equation, particulate matter emissions from the rough sawing and molding processes shall be limited to 2.5 pounds per hour for a maximum process rate of 0.5 tons per hour.

Uncontrolled Compliance calculation:

$$(5.475 \text{ tons PM/yr}) * (\text{yr}/8,760 \text{ hrs}) * (2,000 \text{ lbs/ton}) = 1.25 \text{ lbs PM/hr} < 2.5 \text{ lbs PM/hr}$$

The cyclone is not required to be in operation at all times when the woodworking operations, identified as rough sawing and molding are in operation to comply with the requirements of 326 IAC 6-3-2. However, the source voluntarily uses the cyclone to control emissions from the woodworking operation.

Testing Requirements

Testing is not required for this source.

Compliance Monitoring Requirements

Compliance Monitoring is not required since the allowable emissions is less than 10 pounds per hour and the source voluntarily uses the cyclone to control emissions from the woodworking operations.

Conclusion

The operation of this woodworking facility shall be subject to the conditions of the attached proposed Registration No. 141-15187-00544.

Appendix A: Emission Calculations
Woodworking Calculations

Company Name: Universal Forest Products, Inc.
Address City IN Zip: 50415 Herbert St., Granger, IN 46530
Registration #: 141-15187-00544
Reviewer: AB/EVP
Date: January 2, 2002

Process/Facility							
	Sawdust Production (tons/yr)	Emission Factor for PM (lb PM/ton of Sawdust)	PM Potential Emission (ton/yr)	PM-10 Potential Emission (ton/yr)	PM Controlled Emissions (ton/yr)	PM-10 Controlled Emissions (ton/yr)	Control Efficiency (%)
Hogger Cyclone							
Shaving/Chipping	4,380	0.5	5.475	2.738	1.095	0.548	80
Mill Cyclone							
Rough Sawing and Molding	4,380	0.5	5.475	2.738	1.095	0.548	80
Total Emissions (tons/yr)			10.95	5.475	2.19	1.095	

The Emission Factors listed in this table are for the calculation of control emissions for milling and hogging processes when using a Medium Efficiency Cyclone for particulate matter control and were taken from Oregon Dept. of Environmental Quality Air Contaminant Discharge Permit Application.

PM-10 fraction is fifty percent (50%) of total particulate matter for a medium efficiency cyclone.

Methodology:

PM Potential Emission (ton/yr) = (sawdust production)(tons/yr)*(emission factor)(lb PM/ton sawdust)/((100-control efficiency)/100)/(2000 lb/ton)

PM-10 Potential Emission (ton/yr) = (PM Potential Emission)*(50 %)/(2000 lb/ton)

PM Controlled Emission (ton/yr) = (sawdust production)(tons/yr)*(emission factor)(lb PM/ton sawdust)/(2000 lb/ton)

PM-10 Controlled Emission (lb/yr) = (PM Controlled Emission)*(50 %)/(2000 lb/ton)